To: Suchomel, Bruce[Suchomel.Bruce@epa.gov]

From: Beau Judge

**Sent:** Tue 9/16/2014 3:14:35 PM

Subject: RE: Petroglyph Energy MAIP Concerns in Antelope Creek Field

Bruce,

The attachment "Petroglyph Antelope Creek Waterflood MAIP Redetermination" has the permit numbers next to the wells on my copy. Please let me know if it is not showing up in yours. Also as far as the N/A and #VALUE fields are concerned those wells have no ISIP information. I had mentioned in our meeting that for those wells that we would keep the current MAIP if acceptable to the EPA.

Let me know if you need any additional information.

Regards,

Beau Judge

Engineer

Petroglyph Energy

O: 208.685.7654

M: 208.841.5354

From: Suchomel, Bruce [mailto:Suchomel.Bruce@epa.gov]

Sent: Tuesday, September 16, 2014 8:08 AM

To: Beau Judge

Subject: RE: Petroglyph Energy MAIP Concerns in Antelope Creek Field

Beau,

Please resubmit the spreadsheet with all values displayed, i.e., some of the values display "N/A" or "#VALUE!".

Also include the permit number for each well – I had furnished the respective permit numbers previously.

The spreadsheet, under landscape format, should allow for the extra column and larger column widths to display the values.

Thanks – that should allow us to proceed with the minor modification for each well.

Bruce Suchomel
UIC Program - Environmental Engineer/Project Manager
USEPA Region 8 (P-W-UIC)
1595 Wynkoop St.
Denver, CO 80202-1129
303-312-6001

From: Beau Judge [mailto:bjudge@pgei.com] Sent: Monday, September 15, 2014 12:36 PM

To: Suchomel, Bruce

Subject: RE: Petroglyph Energy MAIP Concerns in Antelope Creek Field

Bruce,

Please see the attached letter requesting the recalculation of all of the MAIP for wells governed under the Area Permit 20736.

I have also attached our original letter for reference. Please let me know if there is anything else you need from Petroglyph to get this process completed.

Regards,

Beau Judge

## Engineer

Petroglyph Energy

O: 208.685.7654

M: 208.841.5354

From: Suchomel, Bruce [mailto:Suchomel.Bruce@epa.gov]

**Sent:** Thursday, August 28, 2014 10:29 AM

To: Beau Judge

Subject: RE: Petroglyph Energy MAIP Concerns in Antelope Creek Field

Beau,

Attached is your spreadsheet with permit numbers added to the last column.

Your MAIP modification request should include the background for the recalculation, as we discussed in the meeting. Your spreadsheet already has the calculations using the FR based on ISIP, so you can furnish the attached sheet, plus any additional information that you want to include.

Your comingling concern is production related. So long as the wells maintain the minimum of 80% Cement Bond Index throughout the confining zone(s) of UIC injector wells and Area of Review wells, then there should be no UIC concerns. Your cement determinations were made at the time of each well being added to the area permit.

Regarding Antelope Creek Waterflood expansion, let's discuss Petroglyph's plans for that area. (See my other e-mail.) We can evaluate the approach of individual permits vs. the area permit, and can always do individual permits that can be incorporated into the area permit if we decide to expand the current area permit at a later date.

Bruce Suchomel
UIC Program - Environmental Engineer/Project Manager
USEPA Region 8 (P-W-UIC)
1595 Wynkoop St.
Denver, CO 80202-1129
303-312-6001

From: Beau Judge [mailto:bjudge@pgei.com] Sent: Wednesday, August 27, 2014 3:37 PM

To: Suchomel, Bruce

Subject: RE: Petroglyph Energy MAIP Concerns in Antelope Creek Field

Great thanks.

Beau Judge

Engineer

Petroglyph Energy

O: 208.685.7654

M: 208.841.5354

From: Suchomel, Bruce [mailto:Suchomel.Bruce@epa.gov]

Sent: Wednesday, August 27, 2014 3:36 PM

To: Beau Judge

Subject: RE: Petroglyph Energy MAIP Concerns in Antelope Creek Field

Yes, I just located it. I'll take a look at it tomorrow, and try to update your spreadsheet with the permit numbers.

Bruce Suchomel

Sent: Wednesday, August 27, 2014 3:16 PM To: Suchomel, Bruce Subject: RE: Petroglyph Energy MAIP Concerns in Antelope Creek Field
Bruce,
Please see attached.
Were you able to find a copy of the Area Permit?
Thanks,
Beau Judge
Engineer
Petroglyph Energy
O: 208.685.7654
M: 208.841.5354

From: Beau Judge [mailto:bjudge@pgei.com]

From: Suchomel, Bruce [mailto:Suchomel.Bruce@epa.gov] Sent: Wednesday, August 27, 2014 2:57 PM

To: Beau Judge

Subject: RE: Petroglyph Energy MAIP Concerns in Antelope Creek Field

Beau,

Do you have the actual spreadsheet of your area permit wells that you attached in a .pdf file? I've matched permit numbers for each. All of them fall under the area permit UT20736-xxxxx.

The five numbers after the dash are individual wells attached to this area permit. For instance, the permit number for the first well on the spreadsheet (08-04) is UT20736-04201.

Each well on your spreadsheet has a permit number.

Bruce Suchomel
UIC Program - Environmental Engineer/Project Manager
USEPA Region 8 (P-W-UIC)
1595 Wynkoop St.
Denver, CO 80202-1129
303-312-6001

From: Beau Judge [mailto:bjudge@pgei.com]
Sent: Friday, August 08, 2014 3:09 PM

To: Suchomel, Bruce

Cc: Paul Powell; Ken Smith

Subject: Petroglyph Energy MAIP Concerns in Antelope Creek Field

Bruce,

Paul Powell met you at the Oil and Gas Expo last year in Utah. He mentioned that we had a few concerns with the waterflood Petroglyph operates in the Antelope Creek Field in Duchesne County, Utah. We would like to open a dialogue about increasing some of our MAIPs and also understanding how the calculation will be done when we submit new injection permits. We would like to schedule a face-to-face meeting at your convenience after you have had a chance to review this information. Feel free to contact me with any question and what dates may work for a meeting.

Regards,

Beau Judge
Engineer
Petroglyph Energy
O: 208.685.7654
M: 208.841.5354
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attachments.